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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,226	03/26/2007	Jong-Yang Kim	50238	6163

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ROYLANCE, ABRAMS, BERDO & GOODMAN, L.L.P.
1300 19TH STREET, N.W.
SUITE 600
WASHINGTON,, DC 20036

EXAMINER	
GU, YU	

ART UNIT	PAPER NUMBER
2617	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/561,226	KIM ET AL.	
	Examiner	Art Unit	
	YU (Andy) GU	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 May 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4 and 9-11* is/are rejected.

7)☒ Claim(s) *5-8* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *4/27/2009*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of Claims

1. Applicant's amendment, filed on 5/18/2009, has been entered and carefully considered. Claims 1-11 have been amended. No claims have been added, nor cancelled. Accordingly, claims 1-11 are pending.

2. In light of Applicant's remarks, the Examiner has withdrawn the rejection of claim 1 under 35 U.S.C. 112, first paragraph.

3. In light of Applicant's amendments, the Examiner has withdrawn the rejection of claim 3 under 35 U.S.C. 112, second paragraph.

Information Disclosure Statement

4. The information disclosure statements (IDS) submitted on 4/27/2009 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner.

Claim Rejections - 35 USC § 102

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. **Claims 1-2** are rejected under 35 U.S.C. 102(e) as being anticipated by US 6980840 B2 Kim et al. (hereinafter Kim).

Regarding **claim 1** (currently amended), Kim discloses *a driving apparatus of a sliding-type portable wireless terminal using a magnetic body* (see at least Figure 14-15 and column 8 lines 58-63), *the terminal having a main body* (see at least Figure 15 item 10) *and a sub-body* (see at least Figure 15 item 20) *adapted to slide along a longitudinal*

direction of the main body to be opened/closed (see at least Figure 2A and 2B)*, the driving apparatus comprising:*

- *a first magnetic body module* (see at least Figure 15 item 20) *positioned on a rear surface of the sub-body and having a first magnetic body* (see at least Figure 15 item 70) *fastened thereon, which has a predetermined polarity and which extends along a longitudinal direction* (see at least Figure 2A and 2B) *thereof* (see at least column 8 lines 58-63)*,*

- *and a second magnetic body module* (see at least Figure 15 item 10) *positioned on the front surface of the main body and having a second magnetic body* (see at least Figure 15 item 74) *fastened thereon, which has a predetermined polarity and faces the first magnetic body* (see at least column 8 lines 46-51 and 64-67)*;*

- *wherein the second magnetic body faces a portion of the first magnetic body when the main body is opened and the second magnetic body faces another portion of the first magnetic body when the main body is closed* (as shown in Fig. 5 and Fig. 15, second magnetic body 74 faces a portion of the first magnetic body 70 when closed, and another portion when open)*, and wherein the sub-body slides on the main body by a drawing force exerted between the second magnetic body and one of the portions of the first magnetic body* (as shown in Fig. 15, the sub-body 20 slides on the main body 10, the effect of the magnetic drawing force are inherently existent because, according to Kim, magnetic body 70 and 74 are permanent magnets, therefore, the force induced between 70 and

74 are inherently exerted on the sub-body and the main body as one slides on another, see at least column 8 lines 44-45, 56-57 and column 9 lines 1-13).

Regarding **claim 2** (currently amended), Kim discloses the limitations as shown in the rejection of claim **1**, Kim further discloses:

- *wherein the magnetic body of the first magnetic body module has a polarity, in both ends thereof* (i.e. dual polarities intrinsically exist on the ends of a magnetic body)*, which exerts a drawing force in relation to the magnetic body of the second magnetic body module and another polarity* (see at least column 8 lines 64-67, where Kim discloses that the second magnetic body i.e. Figure 15 item 74 and the first magnetic body i.e. Figure 15 item 70 are of opposite polarity, therefore 70 and 74 exert a drawing force on each other to maintain the closed state)*, in the central portion thereof, which exerts a repulsive force in relation to the magnetic body of the second magnetic body module* (see at least column 9 lines 1-8, where Kim discloses the first and second magnetic body repulse each other).

Claim Rejections - 35 USC § 103

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. **Claims 3-4** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view of US 20020137476 A1 Shin (hereinafter Shin).

Regarding **claim 3** (currently amended), Kim discloses the limitations as shown in the rejection of claim **1**. Kim further discloses that the magnetic body (i.e. Figure 15 item 70)

is fastened on a surface or the sub-body. Kim is silent as to the limitation "a first base plate", and therefore fails to disclose *wherein the first magnetic body module has a first base plate fastened on the rear surface of the sub-body, a pair of sliding guides fastened on a surface of the base plate and extending along the longitudinal direction of the first base plate, and the magnetic body fastened on a surface of the first base plate.* However, in the same field of endeavor, Shin teaches using a sliding module that has a base plate (i.e. see at least Shin Figure 4 item 420) fasten on the rear surface of a sub body of a mobile phone (see at least shin Figure 3 item 312 and paragraph [0036] where Shin discloses that item 420 (i.e. a base plate) is attached to a upper housing i.e. analogues to the sub-body). Shin further disclose a pair of sliding guides (i.e. see at least Shin Figure 4 item 413 and 414 and paragraph [0037]) fastened on a surface of the base plate that extending along the longitudinal direction of the base plate. It would have been obvious to a person of ordinary skill in the art to modify Kim in view of Shin in order to facilitate the sliding action between the sub-body and the main body.

Regarding **claim 4** (currently amended), Kim and Shin disclose the limitations as shown in the rejection of claim **1** and **3**. Kim further discloses that the magnetic body fastened on the second magnetic body module faces the magnetic body fastened on the first magnetic body module (see at least Figure 15). Kim is silent as to the limitation "*a second base plate*", and therefore is silent as to *wherein the second magnetic body module has a second base plate adapted to face the first base plate and sliding grooves formed on a surface of the second base plate to be engaged with the sliding guides for sliding, and the magnetic body of the second magnetic body module is fastened on a*

surface of the second base plate and faces the magnetic body of the first magnetic body module, which is fastened on a surface of the first base plate. However, in the same field of endeavor, Shin discloses a second base plate (see at least Shin Figure 4 item 430) adapted to face a first base plate (i.e. item 420), and has sliding grooves (see at least Figure 4 item h1) formed on the surface of the second base plate (see at least Shin paragraph [0035]-[0037]). It would have been obvious to a person of ordinary skill in the art to modify Kim in view of Shin in order to facilitate the sliding action between the sub-body and the main body.

9. **Claim 9** is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view of US 6947777 B2 Crum (hereinafter Crum).

Regarding **claim 9** (currently amended), Kim discloses the limitations as shown in the rejection of claim **1**. Kim is silent as to the limitation *wherein the first and second magnetic body modules are provided with shield members so that the magnetic force from the magnetic bodies, which are fastened thereon, cannot be discharged out of the driving apparatus.* In a related field of endeavor, Crum discloses the using a magnetic material in the construction of an electronic communication device (see at least Crum abstract), Crum further disclose shielding the magnetic material (see at least Crum column 2 lines 5-21). It would have been obvious to a person of ordinary skill in the art to modify Kim in view of Crum in order to ensure the proper operation of the communication device.

10. **Claim 10** is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view of Crum and Shin.

Regarding **claim 10** (currently amended), Kim and Crum discloses the limitations as shown in the rejection of claim 1 and **9**. Kim is silent as to the limitations of claim 10. However, in the same field of endeavor, Shin teaches a first base plate (i.e. see at least Shin Figure 4 item 420) fasten on the rear surface of a sub body of a mobile phone (see at least shin Figure 3 item 312 and paragraph [0036] where Shin discloses that item 420 i.e. the first base plate is attached to a upper housing i.e. analogues to the sub-body). Shin further teaches a *second magnetic body module has a second base plate* (see at least Shin Figure 4 item 430) fastened *on the front surface of the main body and coupled to the first base plate* (i.e. item 420) *in such a manner that it can slide while facing the first base plate* (see at least Shin paragraph [0035]-[0037]). It would have been obvious to obvious to a person of ordinary skill in the art to modify Kim in view of Shin to fasten the magnetic bodies on the respective base plates in order to facilitate the sliding action between the sub-body and the main body, therefore, one of ordinary skilled in the art would also applied shield members on the magnetic bodies (therefore on the surfaces of respective base plates) as taught by Crum in order to ensure the proper operation of communication device.

11. **Claim 11** is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view of Crum US 6136131 A Sosnowski (hereinafter Sosnowski).

Regarding **claim 11** (currently amended), Kim and Crum disclose the limitations as shown in the rejection of claim 1 and **9**. Kim is silent as to the limitation *wherein the shield members are made of a material selected from the group consisting of a spring steel plate, an electric zinc-plated steel plate, and a silicon steel plate.* However, in a

related field of endeavor, Sosnowski discloses using steel to reduce magnetic interference (see at least Sosnowski column 3 lines 12-20). It would have been obvious to a person of ordinary skill in the art to make the shield members from steel materials (e.g. spring steel plate) because Sosnowski teaches that steel preferred for shielding magnetic interference.

Allowable Subject Matter

12. **Claims 5-8** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

13. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

14. Applicant's arguments (see Applicant's remarks page 10-11) with respect to claims 5-8 have been fully considered and are persuasive. The rejections of claim 5-8 under 35 U.S.C. 103 (a) has been withdrawn.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to YU (Andy) GU whose telephone number is (571)270-7233. The examiner can normally be reached on Mon-Thur 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester G. Kincaid can be reached on 5712727922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/YU (Andy) GU/

Examiner, Art Unit 2617

/Lester Kincaid/
Supervisory Patent Examiner, Art Unit 2617